

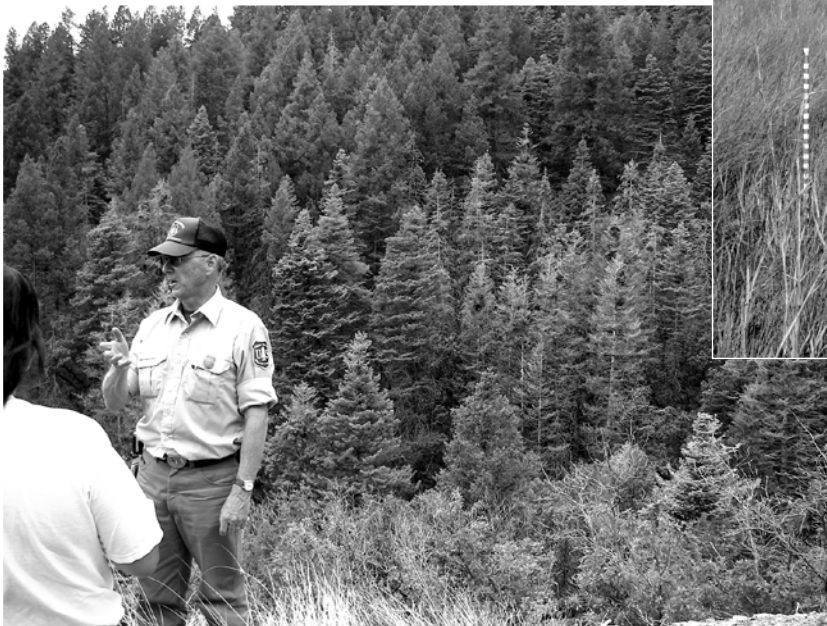
United States  
Department of  
Agriculture

Forest Service

Southwestern  
Region

July 2013

# Cibola National Forest and National Grasslands Fiscal Year 2012 Monitoring and Evaluation Report



## Table of Contents

|  |   |
|--|---|
| Forest Supervisor Certification .....  | 2 |
| Executive Summary .....  | 4 |
| Forest Plan Background and Amendments .....  | 7 |
| Table of Monitoring Activities, Results, and Relevant Comments for FY 2012, Cibola<br>National Forest and National Grasslands..... | 9 |

## Forest Supervisor Certification

I certify that the Cibola National Forest Plan (Forest Plan) as amended is sufficient to guide future management of the Cibola National Forest and National Grasslands until the plan revision process is completed.

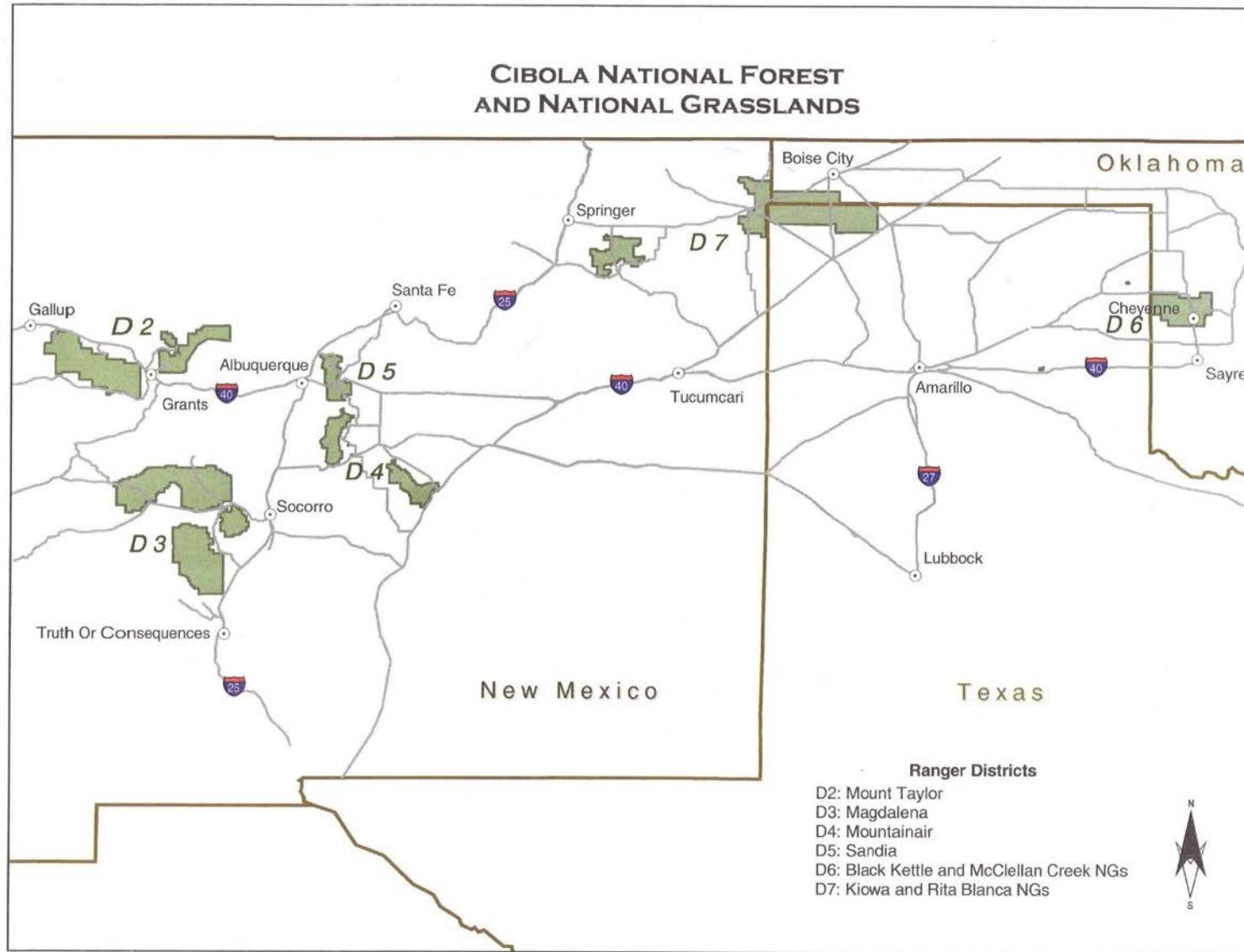
This Monitoring and Evaluation Report meets regulatory requirements for completing an annual report for the fiscal year of 2012, based on Section 219 of the 1982 planning rule provisions.

Elaine Kohrman

Elaine Kohrman, Forest Supervisor

7/12/2013

Date



## Executive Summary

This report presents fiscal year (FY) 2012 monitoring results of land and resource management activities important to achieving Forest-wide goals stated in the [1985 Cibola National Forest Plan](#). The monitoring elements addressed by this report are presented on pages 199-229 of the 1985 Cibola Forest Plan. Also included in this report are monitoring activities of other, more recent initiatives and mandates.

This section summarizes information presented in the monitoring table found on pages 8 thru 33. Monitoring results and inferences for cultural resources, transportation, forestry, land use, minerals, special use permits, range, recreation, soils and water, and wildlife are reported. These results and inferences are anticipated to be relevant to future adaptive management.

Cultural resources monitoring in FY 2012 consisted of 40 heritage resource sites that were determined to be eligible for the National Registry. One hundred and twenty surveys were conducted for Section 106 clearances, and 140 sites were inspected to satisfy deferred maintenance requirements or were opportunistic inspections (non-project related).

Monitoring by the engineering program shows that no new roads were constructed, and 14.5 miles of existing systems roads were reconstructed on the Cibola National Forest and Grasslands in FY 2012. Approximately 226 miles of Forest Service roads were maintained, and no roads were obliterated. Emphasis for FY 2013 and beyond will be on completing the Magdalena Ranger District (RD) Travel Management planning and analyses and developing an inventory of all roads on FS lands.

The fire and fuels program conducted and monitored prescribed burns on approximately 4,028 acres in FY 2012. This acreage is below average and is largely due to weather conditions not being conducive to meeting burn prescriptions. There were 47 unplanned fires burning a total of approximately 126 acres, which is also below average and is likely due to fire restrictions and closures on the Forest during summer months.

Monitoring by the forestry program indicates that resource damage is occurring in some areas of the RDs and requires increased attention by law enforcement to enforce permit requirements.

Mortality of Douglas-fir tussock moth in white fir and Douglas-fir stands, and by various other bark beetles (D5) continues, and levels are less than in previous years. Aerial surveys showed that bark beetle activity increased greatly in the Datil Mountains on D3 during FY 2012. Slash from mechanical thinning needs to be monitored more closely for insect infestations and outbreaks as the drought persist. (all mountain ranger districts)

Monitoring forest and watershed health across the Forest has shown that timely inspections are key to achieving desired results when implementing Designation by Prescription on Collaborative Forest Restoration Projects (CFRPs) and service contracts

## FY 2012 Monitoring & Evaluation Report – Cibola National Forest & Grasslands

in pinion/juniper stands on Mt. Taylor, Magdalena, and Sandia Ranger Districts. Additionally, based upon monitoring of personal-use firewood permit data and comments from the public, several RDs have adapted by making length-of-season adjustments and area wide designations in personal-use firewood permitting.

For FY 2012, approximately 602 acres of timber stand improvement projects were accomplished, along with 2,812 acres of intermediate harvest. Approximately 534,100 cubic feet of forest product stumpage was sold

Lands adjustments monitoring indicates the acquisition of title to the Little Rosa property on Magdalena RD, thereby eliminating the need for easements to Forest land.

Minerals activities were highlighted by the preparation and release of two draft Environmental Impact Statements for La Jara and Roca Honda uranium mine proposals on Mt. Taylor RD. The public comment period has closed for both NEPA documents.

Monitoring of special use permits shows that permits issued for longer terms reduce the burden of re-issuance. Monitoring for NEPA compliance is occurring when permits are reissued. However, compliance inspections in the interim are reduced due to limited personnel.

Range monitoring has shown that drought continues to be the most frequent reason for adjusting grazing strategies through adaptive management processes. On the mountain districts, cattle were either removed from an allotment or moved to other areas as a result of low forage production. On the Cibola National Grasslands, stocking levels were either reduced or the grazing season shortened. Annual planning, cooperative strategizing, and adaptive management (reducing stocking levels or shortening grazing seasons) have enhanced permittee compliance and is helping to meet management goals and objectives. All monitored allotments were in compliance with the Annual Operation Instructions for FY 2012. Range condition was found to be in a downward trend due to continuing drought.

Monitoring by the recreation program indicated that one hundred and forty-four miles of Sandia Wilderness were maintained by the Friends of Sandia Mtn. (FOSM) volunteers, and approx. 2 miles of reconstruction completed by other volunteers. Recreation program monitoring also indicates that completing deferred maintenance on recreation facilities continues to be a challenge with limited program funding. Magdalena and Mt. Taylor RDs have substantial number of recreation facilities falling below a desired condition index, while other RDs have considerably fewer or no facilities failing to meet the desired condition index.

Hazard tree removal continues to be a challenge on the Sandia RD. Hazard trees are not only a safety hazard for employees and the visiting public but can damage or destroy facilities and amenities within recreation areas. The Sandia RD continues to depend on the efforts of skilled volunteers in removing hazard trees from recreation areas as well as trails, and for trail construction, reconstruction, and maintenance.

## FY 2012 Monitoring & Evaluation Report – Cibola National Forest & Grasslands

Soil and water monitoring on the Forest included a joint inventory with the University of New Mexico to characterize springs across the Forest and Grasslands. This inventory provides basic information about springs and their associated surface and ground waters, using protocols developed by the USDA Forest Service and other researchers. Location, flow, chemistry and management status are some of the attributes collected. In FY 2012, 49 springs were inventoried for characteristics and condition. This includes 19 springs on the Sandia Ranger District. On the Mount Taylor Ranger District, 30 springs were assessed. A spring, Agua Ramora, is being monitored more extensively, due to its importance to the Zuni bluehead sucker, a rare fish.

Opportunities for watershed improvement are being identified through an integrated approach and by assessing the effectiveness of best management practices. The wildlife program is communicating with watershed resources to improve riparian and watershed conditions for both resources. Range is working with watershed to improve springs where these features are used as water sources for livestock. Engineering provides assistance with improving roads or trails, and as needed, removal, to reduce impacts to water resources. By combining resources, watershed conditions on 600 acres were improved in FY 2012. This includes soil improvements through targeted vegetation management on the Mountainair Mt. Taylor Ranger Districts.

As a result of the Watershed Condition Assessment completed in 2011, two priority watersheds have been identified, Bluewater and Las Huertas. A watershed improvement action plan (WRAP) is in progress for the Las Huertas watershed. Essential restoration projects identified in the Bluewater WRAP are being implemented.

Monitoring of projects for wildlife habitat improvement has led to the following observations about their effectiveness: 1) on-going drought conditions have resulted in lack of herbaceous or browse species response on most treatment areas; 2) inspection of fences surrounding wildlife waterers needs to be done annually to prevent livestock entry and fiberglass water catchments will be systematically replaced as funding allows or they will be decommissioned; 3) nine metal platforms constructed for Ferruginous Hawk are not being used on the Rita Blanca and would be better used by relocating to the Kiowa; and 4) areas treated to improve browse productivity and availability should receive rest from grazing following the treatment. Prescribed burning for wildlife habitat improvement declined on some districts in FY 2012 because of drought conditions.

Budget deficiencies resulted in some usual monitoring activities not being conducted during FY 2012, including monitoring of number of quality snags per acre and roost group trees left in forest product sale areas. Limited Northern Goshawk monitoring of known territories was accomplished in FY 2012, and two pair were documented as successful with four young. Six of the 20 known Peregrine Falcon eyries were monitored in FY 2012, with two producing young. One young was taken under permit by a falconer. Twenty nine protected activity centers for Mexican Spotted Owl were monitored and 23 were occupied. No southwestern willow flycatchers were detected, but habitat on the Mt. Taylor RD exists. Population trends of management indicator species monitored on the Forest tended to be either up or stable. Raptor and passerine monitoring on the

## FY 2012 Monitoring & Evaluation Report – Cibola National Forest & Grasslands

Mountainair RD showed stable upward trends for some species but below average for others. For some raptor species, immature to adult ratios were documented as being below average. For raptors, median passage date was significantly later than that of the period 1985-2010.

On the Kiowa and Rita Blanca National Grasslands, black-tailed prairie dogs were monitored by Kansas State Univ. and other partners, and colony area substantially expanded from FY 2011. Monitoring was initiated in FY 2012 for the first time for mountain plover on these Grasslands.

### Forest Plan Background and Amendments

The Forest Plan and associated Environmental Impact Statement (EIS) were published in 1985. Since then, the following amendments have been made to the 1985 Forest Plan:

| <b>Amendment Number</b> | <b>Decision Date</b> | <b>Amendment Description</b>  |
|-------------------------|----------------------|---|
| Amendment #1            | 01/09/87             | Clarified language throughout all five chapters   |
| Amendment #2            | 05/25/89             | Added electronic site near Boise City, OK for the Coast Guard's Long-Range Aid to Navigation (LORAN-C)  |
| Amendment #3            | 06/30/89             | Changed timber projections based on projects in Las Huertas Canyon near Placitas, NM  |
| Amendment #4            | 05/29/90             | Revised the 10-year timber sale schedule, amended fire management Standards & Guidelines (S&Gs), added black bear and curlew to the Management Indicator Species (MIS) list, changed Recreation Opportunity Spectrum (ROS) for Management Areas (MAs) 8 and 13. |
| Amendment #5            | 06/27/90             | Designated Oso Ridge Lookout as an electronic site  |
| Amendment #6            | 09/06/91             | Established S&Gs for capital investment priorities and Sandia winter use; added the grasshopper sparrow to the MIS list; and established S&Gs for Aberts squirrel   |
| Amendment #7            | 09/09/96             | Added Regional direction for management of Mexican spotted owl, northern goshawk, grazing, old growth   |
| Amendment #8            | 12/20/96             | Returned federal lands near Kirkland Air Force Base from DOE back to the National Forest System   |
| Amendment #9            | 09/18/97             | Established Bernalillo Watershed Research Natural Area  |
| Amendment #10           | 10/17/02             | Identified eligible wild and scenic rivers and added direction for protecting their values  |
| Amendment #11           | 07/10/08             | Changes to Sandia RD direction required by Travel Management decision   |



## FY 2012 Monitoring & Evaluation Report – Cibola National Forest & Grasslands

|               |          |   |
|---------------|----------|---|
| Amendment #12 | 08/26/08 | Changes to Grasslands MAs 4 and 5 oil and gas leasing stipulations  |
| Amendment #13 | 05/07/12 | Travel Management on the Mountainair RD                             |
| Amendment #14 | 06/19/12 | Deleted plan standards related to Casa Loma summer homes, Sandia RD |

## **Table of Monitoring Activities, Results, and Relevant Comments for FY 2012, Cibola National Forest and National Grasslands**

### **ABBREVIATIONS USED IN TABLE**

ARRA – American Recovery and Reinvestment Act

AUM – Animal Unit Month

BBS – Breeding bird survey

BLM – Bureau of Land Management

CCF – 100 cubic feet

CFRP – Collaborative Forest Restoration Program

D2 – Mount Taylor Ranger District

D3 – Magdalena Ranger District

D4 – Mountainair Ranger District

D5 – Sandia Ranger District

D6 – Black Kettle and McClellan Creek Ranger District

D7 – Kiowa and Rita Blanca Ranger District

EIS – Environmental Impact Statement

EMIFPA – East Mountain Interagency Fire Protection Assoc.

FACTS – Forest Service Activity Tracking System

FARSITE - Fire behavior and growth simulator

FS – Forest Service

FSveg – Field Sampled Vegetation database

GIS – Geographic Information System

IDIQ – Indefinite Delivery Indefinite Quantity Contract

INFRA – Infrastructure database

NEPA –National Environmental Policy Act

NMDGF – New Mexico Dept. of Game & Fish

NMSU – New Mexico State University

NWI – National Wetlands Inventory

ODWC – Okla. Dept. of Wildlife Conservation

PAC – Protected Activity Center

PAOT- People at one time

PTSAR – Periodic Timber Sale Accomplishment Report

RAR – Roads Accomplishment Report

RD – Ranger District

RO – Regional Office

RX – Prescribed burn

SO – Forest Supervisor's Office

TDPW – Texas Dept. of Parks and Wildlife

TEUI – Terrestrial Ecological Unit Inventory

TIM – Timber Information Manager Software Application

USFWS – U.S. Fish and Wildlife Service

USGS – U.S. Geological Survey

WUI – Wildland urban interface

# FY 2012 Monitoring & Evaluation Report – Cibola National Forest & Grasslands

| Program Area       | Monitoring Accomplished  | Record Location  | Districts          | Results   | Comments   |
|--------------------|--|--|--------------------|---|--|
| Cultural Resources | Heritage Resources listed in or eligible to the National Register of Historic Places | SO   | Forest-wide        | 40 heritage resource sites determined eligible to the National Register in FY 2012. Five sites are currently listed on the National Register. | Total number of sites documented in FY 2012: 140.  |
| Cultural Resources | Clearance Surveys for Heritage Resources   | SO   | Forest-wide        | 120 surveys, totaling 13,028 acres for Section 106 clearances.  | Total acres cleared for undertakings, based on previous and new surveys: 19,341.   |
| Engineering        | Miles of road construction/reconstruction  | FY 2012 Road and Bridge Accomplishment Report – SO Engineering | D4                 | 14.5 miles  | Work was completed on NFS roads 245 and 138. Work on NFS road 245 was for the purpose of post-wildfire rehabilitation and consisted of removing downed trees from the roadway and roadsides, re-establishing drainage dips and catch basins, replacing culverts, and placing aggregate surfacing. NFS road 138 is a primary north-south corridor on the District. Work on this road consisted primarily of smoothing prominent rock outcroppings and establishing adequate surface drainage. |
| Engineering        | Miles of level 3, 4, and 5 road maintenance  | 2012 Road and Bridge Accomplishment Report – SO Engineering    | D2, D3, D4, D5, D7 | 226 miles   |  |

# FY 2012 Monitoring & Evaluation Report – Cibola National Forest & Grasslands

| Program Area | Monitoring Accomplished  | Record Location   | Districts          | Results  | Comments   |
|--------------|--|---|--------------------|--|--|
| Engineering  | Miles of road obliterated  | 2012 Road & Bridge Accomplishment Report – SO Engineering               | N/A                | 0  | No obliteration in FY 2012   |
| Fire/Fuels   | Monitored during- and after-treatment conditions including smoke, weather, fire behavior, fire effects on residual vegetation and other resources.   | District files burn plan file, FACTS                                    | Forest-wide        | Wildland fires in FY 2012 totaled 126 acres. Approximately 4,028 acres of prescribed burning and thinning were completed |  |
| Forestry     | Monitored compliance with silvicultural prescriptions including post-treatment basal areas, canopy cover, stand densities, snag retention, and implementation of mitigation measures in timber sale, personal use firewood programs, and CFRP thinning grants administered in FY 2012. | Forestry records located in individual District Project files and at SO | D2, D3, D4, D5, SO | Inspections indicated compliance.  | Timely inspections are key to achieving desired results when implementing. Designation by Description on Collaborative Forest Restoration Projects and service contracts in pinyon-juniper stands (D2,D3, D5).<br>Monitoring has allowed the districts to make length of season adjustments in personal-use firewood (D2, D3, D4).<br>Monitoring has also allowed district to make area-wide designations for personal-use firewood (D3).<br>Desired results are also achieved through interaction and collaboration with grant partners (D2, D3, D4). |

FY 2012 Monitoring & Evaluation Report – Cibola National Forest & Grasslands

| Program Area | Monitoring Accomplished  | Record Location           | Districts      | Results   | Comments   |
|--------------|--|---------------------------|----------------|---|--|
| Forestry     | <p>Monitored for insect or disease damage to forest stands through aerial survey (by RO) and ground sampling (by district foresters)</p> <p>Monitored for insect activity within active timber sales &amp; thinning projects (D2,D3, D4, D5)</p> | Forestry files            | D2, D3, D4, D5 | <p>Mortality continues by Douglas-fir tussock moth in white fir and Douglas-fir, and by various other bark beetles (D5), but levels are less than in previous years.</p> <p>Aerial surveys showed that bark beetle activity increased greatly in the Datil Mountains on D3.</p> | <p>Slash from mechanical thinning needs to be monitored more closely for insect infestations and outbreaks (D2).</p> <p>Monitoring for insect activity within timber sales and thinning projects has allowed work to continue during the bark beetle season (January-June) (D2,D4).</p>  |
| Forestry     | Monitored for hazard trees at all developed recreation sites.  | District recreation files | Forest-wide    | <p>There is continued mortality, mostly white fir, in Sandia Districts' developed recreation sites (D5).</p> <p>Little unauthorized off-road travel has occurred. (D5).</p>   | <p>Coordinated with wildlife on the timing of hazard tree removal to reduce the impact on cavity nesters. Generally the fall is the best time of the year for removal (D5, D4, D3, D2).</p> <p>Bucking of fallen trees is not necessary to ensure removal; fuelwood permittees do it and carry bucked sections over 100 feet to parking areas.</p> |

# FY 2012 Monitoring & Evaluation Report – Cibola National Forest & Grasslands

| Program Area | Monitoring Accomplished   | Record Location         | Districts   | Results   | Comments   |
|--------------|---|-------------------------|-------------|---|--|
| Forestry     | Monitored commercial and personal-use fuelwood areas for compliance with permits and contract requirements. | District forestry files | Forest-wide | Wood theft and timber trespass are occurring. Compliance with closure orders is not always occurring. | Due to lack of FPOs and law enforcement, the Forest has moved to load ticket system and NEPA designated fuelwood areas-forestwide.<br>Law enforcement is not sufficient (D2, D3, D4). There continues to be inadequate funding of the Forest Protection Officer (FPO) program (D2, D4,D3). Resource damage is occurring and there is no repercussion. Law enforcement is insufficient in those areas incurring resource damage (D2, D4, D3). |
| Forestry     | Acres of overstory and final removal harvest  | TIM                     | Forest-wide | In FY 2012 the Forest did not use this silvicultural practice.  |  |
| Forestry     | Acres of Intermediate Harvest   | TIM and project files   | Forest-wide | In FY 2012 the Forest accomplished 2,812 acres of this harvest system.                                |  |
| Forestry     | Acres in need of reforestation  | FACTs                   | Forest-wide | 0 acres in FY 2012  |  |
| Forestry     | Timber Stand Improvement Acres  | FACTs                   | D2          | In FY 2012 the Forest accomplished 602 acres.   |  |
| Forestry     | CCF of net sawtimber sold   | PTSAR                   | Forest-wide | 5,341 CCF were sold in FY 2012  |  |
| Forestry     | Adequate restocking of regeneration harvest.  | FACTs                   | Forest-wide | 0 acres completed in FY 2012  |  |

## FY 2012 Monitoring & Evaluation Report – Cibola National Forest & Grasslands

| Program Area | Monitoring Accomplished  | Record Location                  | Districts          | Results   | Comments   |
|--------------|--|----------------------------------|--------------------|---|--|
| Forestry     | Stands and acres of forest lands identified and tracked in FSVeg-Common Stand Exams.                     | FSVeg; Stand Exam Contracts @ SO | Forest-wide        | 202 stands completed and were added to FSVeg in FY 2012   |  |
| Lands        | Monitoring of availability of electronic site acres.   | SO                               | D2, D3, D4, D5, D6 | <p>The US Custom and Border Protection was assisted in the establishment and/or co-location at communication sites within the Forest to meet their Homeland Security obligations.</p> <p>The State of New Mexico DOIT has been assisted in meeting their time frames for communication site upgrade at three locations.</p> | Currently, there are approx. 310 acres designated as communication sites. These sites will accommodate either high or low power use, with one being mixed use. They are identified for commercial use or stipulated to accommodate governmental use only (federal agencies or military). |
| Lands        | Effect of mgmt. practices conducted on adjacent non-NFS lands on goals and objectives of the Forest plan | SO                               | Forest-wide        | Continue to address boundary line issues and notification of individuals involved in encroachments.   | Continue to monitor, assess, and take advantage of opportunities as they become available.   |
| Lands        | Monitoring of right-of-way acquisition through non-FS inholdings.  | SO                               | Forest-wide        | Easements will be eliminated due to purchase of Little Rosa Properties (D3)   | Through travel management analyses, ROW needs are being identified and opportunities explored.   |
| Lands        | Effect of goals, objectives and management activities of the Forest on Adjacent non-NFS lands            | SO                               | Forest-wide        | Continue to identify property boundaries through property surveys. Continue to work with non-FS property owners to provide an understanding of the Forest goals.  | Continue to pursue opportunistic and desirable land acquisitions.  |

FY 2012 Monitoring & Evaluation Report – Cibola National Forest & Grasslands

| Program Area                | Monitoring Accomplished  | Record Location | Districts                | Results   | Comments  |
|-----------------------------|--|-----------------|--------------------------|---|---|
| Lands – Special Use Permits | Monitoring for compliance with permit terms and conditions, including environmental effects, during special use permit administration (includes land special use permits). | SO/Districts    | Forest-wide              | Permits now being issued for longer term to reduce burden of permit issuance.<br>Electronic sites need more technical inspection. | On-site inspections are reduced due to lack of personnel at District level.<br><br>Monitoring continues for NEPA compliance with permit reissuance.   |
| Minerals                    | Monitoring for compliance with Plans of Operations   | SO              | D2, D3, D4               | There are current Uranium exploration interests and non-Uranium exploration interests.  | Public comment period has closed for the Draft EIS for La Jara and Roca Honda Resources uranium mine proposals (D2). NEPA proceeding on D2 for an exploration proposal.   |
| Range                       | Monitored Allotments for Livestock Grazing Utilization   | Districts       | D2, D3, D4<br><br>D6, D7 | Compliance obtained on 75 allotments monitored.<br><br>396 units (allotments) monitored. Forage production reduced 75%.           | Prior to the end of the growing season, drought conditions resulted in lower forage production, and cattle were either moved to other areas or removed from an allotment.<br><br>Forage production reduced due to drought. Stocking levels either reduced or seasons shortened. |
| Range                       | Structural Improvements  | Districts       | D2, D3, D4, D6, D7       | Structural improvements were inspected on allotments that were monitored, and condition was found to be satisfactory.             |   |



FY 2012 Monitoring & Evaluation Report – Cibola National Forest & Grasslands

| Program Area  | Monitoring Accomplished  | Record Location                   | Districts                | Results   | Comments  |
|---------------|--|-----------------------------------|--------------------------|---|---|
| Range         | Permitted use and authorized use   | Districts                         | D2, D3, D4<br><br>D6, D7 | 140,000 AUMs-permitted<br>109,248 AUMs authorized<br><br>188,654 AUMs-permitted<br>146,472 AUMs-authorized  | Stocking reduced due to drought.<br><br>No allotments occur on D5.  |
| Range         | Grazing capacity and range condition   | Districts                         | D2,D3, D4, D6, D7        | Conditions found to be in downward trend due to drought.  | Stocking levels reduced and/or season shortened to adjust to poor forage production or lack of livestock water.                       |
| Noxious Weeds | Previously treated areas monitored   | Districts                         | D6, D7                   | 1800 acres monitored for effectiveness of treatment.  |   |
| Recreation    | Miles of Non-Wilderness trail construction or reconstruction and maintenance | INFRA/ARRA files, District        | D5                       | 146 total miles: 144 miles of Sandia Wilderness maintained via Friends of Sandia Mtn. (FOSM) volunteers and approx.. 2 miles of reconstruction completed by other volunteers. | FOSM accomplished critical work for the Sandia RD, completing trail work and felling danger trees within designated recreation areas. |
| Recreation    | Wilderness Use by Wilderness Opportunity Spectrum (WOS)                      | NVUM                              | D3, D4, D5               | Unable to provide visitation (use) of Wilderness by WOS but total visitation identified via the 2011 NVUM was 278,000 visits.   |   |
| Recreation    | Developed site use, public and private sector                                | District files, RO, SO, NVUM 2011 | Forest-wide              | 537,078 PAOT  |   |

FY 2012 Monitoring & Evaluation Report – Cibola National Forest & Grasslands

| Program Area | Monitoring Accomplished  | Record Location   | Districts   | Results   | Comments   |
|--------------|--|---|-------------|---|--|
| Recreation   | Condition of developed sites in the public sector.                 | INFRA and Recreation Office, SO;  | Forest-wide | 78% of sites are in Class I Facility Condition Index (FCI) and 22% of sites in Class II FCI.  | A FCI value less than 10% is regarded as Class I; a FCI greater than 10% is regarded as Class II. Facility Condition Index is an indicator of the depleted value of an asset. For a building, this value is calculated by dividing the deferred maintenance (DM) total by the current replacement value (CRV). The FCI is calculated by fiscal year. |
| Soil & Water | Watershed improvement acres.<br><br>Watershed Condition Assessment | All Districts Offices<br><br>WCATT (Watershed Condition Assessment Tracking Tool) | Forest-wide | Watershed condition improved on 600 acres.<br><br><ul style="list-style-type: none"> <li>• 161 watersheds rated as ‘good’</li> <li>• 50 watersheds rated as ‘fair’</li> <li>• 1 watershed rated as ‘poor’</li> <li>• Watershed Restoration Action Plan (WRAP) developed for Bluewater Watershed (D2). Essential projects identified to bring watershed to properly functioning condition.</li> <li>• Las Huertas WRAP in progress (D5)</li> </ul> | Largely accomplished through integrated projects with wildlife, recreation, engineering, vegetation, and range.  |

FY 2012 Monitoring & Evaluation Report – Cibola National Forest & Grasslands

| Program Area   | Monitoring Accomplished   | Record Location                   | Districts                        | Results  | Comments  |
|----------------|---|-----------------------------------|----------------------------------|--|---|
| Soil & Water   | Riparian acres treated to bring to satisfactory condition.<br><br>Ongoing Spring monitoring through Cost Share Agreement with UNM – leads to appropriate prioritization and restoration | SO                                | D2, D3, D5<br><br>D5<br>D3<br>D2 | Restoration work in Cedro Creek (D5), Limestone Canyon (D3), and Agua Remora (D2)<br><br>D5 – 19 springs (4 were dry); D2 – 30 springs (16 were dry). Springs characterized in term of chemistry, flow, risks, improvement needs, and other factors. | Springs were characterized in term of chemistry, flow, risks, improvement needs, and other factors. Most developed springs do not preserve ecosystem function.  |
| Soil & Water   | Best Management Practices (BMPs) – Monitor projects to determine implementation and suitability of BMP recommendations.   | SO – Project Support Files        | D2, D3, D4, D5                   | Additional practices identified to improve soil condition during vegetative treatments, based on TEU data. Training for BMP National protocol completed. Monitoring begins in 2013.  | Addressing factors which contribute to less than satisfactory soil condition, such as erosion and lack of woody material and motorized cross country travel.  |
| Soil & Water   | Closing temporary roads and trails.<br><br>Close and restore non-designated routes.   | SO Travel Mgmt. Records<br><br>SO | D3, D4<br><br>D2, D5             | High risk roads were identified and not designated for use. Motorized cross country travel is prohibited<br><br>NEPA was initiated for obliteration of non-designated routes on D2, D5.  |   |
| Visual Quality | No monitoring accomplished  | n/a                               |                                  | No monitoring completed.   | Travel Management priority precluded monitoring. Current Visual Management System for the mountain districts will be replaced by the scenery mgmt.. system during forest plan revision. This conversion has already occurred on the Grasslands. |

FY 2012 Monitoring & Evaluation Report – Cibola National Forest & Grasslands

| Program Area | Monitoring Accomplished  | Record Location                                       | Districts          | Results  | Comments  |
|--------------|--|---|--------------------|--|---|
| Wildlife     | Acres of browse vegetation treated to improve availability and productivity. | District Offices                                      | D2, D3, D4, D5, D6 | Acres<br>D2=1860;<br>D3= 1000;<br>D4=468;<br>D5=190<br>D6=1843         | Treatments included prescribed fire, meadow restoration, and invasive species removal.  |
| Wildlife     | Monitored water developments.  | District project or work records                      | Forest-wide        | Number of developments<br>D2=6<br>D3=6<br>D4=8<br>D5=6<br>D6=2<br>D7=2 | Fiberglass catchments will be systematically replaced as funding allows or they will be decommissioned. Fences surrounding wildlife waters need annual inspection to ensure condition prevents livestock entry. |
| Wildlife     | Monitored number of quality snags per acre                                   | Tri-annual Field review of forest product sale areas. | Forest-wide        | Not monitored this period.   | There is field review of forest product sale areas (on a sample basis)-every 3 years.   |
| Wildlife     | Monitored number of roost groups   | Tri-annual Field review of forest product sale areas  | Forest-wide        | Not monitored this period.   | There is field review of forest product sale areas (on a sample basis)-every 3 years.   |

FY 2012 Monitoring & Evaluation Report – Cibola National Forest & Grasslands

| Program Area | Monitoring Accomplished                                   | Record Location                | Districts      | Results   | Comments  |
|--------------|---|--------------------------------|----------------|---|---|
| Wildlife     | Monitored for goshawk occupancy and reproductive success. | SO and District wildlife files | D2, D3, D4, D5 | D2=15 territories<br>D3=4 territories<br>D4=5 territories<br>D5=4 territories | Of the 31 Goshawk territories, only 5 were monitored—4 on the D5 and one on D3. At the former there were two young on the same territory and in the same tree as last year, and at the latter, <b>two fledged young</b> were heard and observed and believed to be from the PFA nearby. On D3, there were two probable young. On D2, the RD switched from contracting out the monitoring effort to doing the job in house by summer seasonals, but no nests were found. |

FY 2012 Monitoring & Evaluation Report – Cibola National Forest & Grasslands

| Program Area | Monitoring Accomplished  | Record Location | Districts | Results   | Comments   |
|--------------|--|-----------------|-----------|---|--|
| Wildlife     | Monitored for reproductive success and occupancy of threatened and endangered animals. | District        | D2, D4    | <p>Southwestern willow flycatcher (SWWF) territories monitored</p> <p>D2=1; None detected<br/>D4=1 (potential habitat); None detected</p> <hr/> <p>There are a total of 55 MSO territories on the Forest. Twenty-nine territories were monitored and 23 were occupied. Inventory was conducted to protocol on an additional 5,963 acres in support of the La Madera (D5) Habitat Restoration project.</p> | <p>In 2012 three visits were made to lower Bluewater (D2) from FR 178 to Andrew's cabin. Surveys occurred on 5-25, 6-21 and 7-11. In May the coyote willow was still brown and dormant-looking, but by mid-June they were budding out and finally reached full development by early July. No SWWFs were detected. The drought of the last two years has drained some of the life from the willow patch, but, the willow patch still looks inviting—though, apparently, something is missing. D4-Monitoring visit to Tajique in FY 2012: No SWWF were detected at or near Sun Valley on 6-29-12.</p> <hr/> <p>The FWS prepared a new Recovery Plan for MSO which was signed in December, 2012. In accordance with the new recovery plan, monitoring of PACs will now be conducted by a random sample and coordinated at the Regional level.</p> |

FY 2012 Monitoring & Evaluation Report – Cibola National Forest & Grasslands

| Program Area | Monitoring Accomplished  | Record Location       | Districts      | Results   | Comments   |
|--------------|--|-----------------------|----------------|---|--|
| Wildlife     | Monitored Aplomado falcon prey species and population trend (Two one mile BBS transects conducted annually by volunteers). | District              | D3             | There are no aplomado falcon territories on the Forest.   | D3-The District continues to establish baseline for prey species abundance and determines absence of Aplomado falcons in suitable habitat on three grazing allotments. Significantly, during a winter survey- along one of the transects, No birds were recorded. It was reported by bird specialists that range condition was in a deteriorated condition due to drought and grazing so no grass seed heads were produced or remained through winter and browse plants were being heavily grazed as well. |
| Wildlife     | Monitored Peregrine Falcon Eyrie occupancy and nest success (Random sample conducted by NMDGF contractors).                | NMDGF, District Files | D2, D3, D4, D5 | Six of 20 sites were monitored. Two eyries produced three young, one of which was taken by a falconer. Two eyries failed, and for two others no birds were found. | Occupancy is increasing on the Cibola NF slightly, but productivity is still suppressed. A closure order to protect this species on D5 was implemented. Take at peregrine sites for falconry purposes was permitted by NMDGF on the Cibola this year. Rock climbing affecting eyries is becoming more apparent at 2 sites on D3.   |

FY 2012 Monitoring & Evaluation Report – Cibola National Forest & Grasslands

| Program Area | Monitoring Accomplished                           | Record Location | Districts | Results   | Comments  |
|--------------|---|-----------------|-----------|---|---|
| Wildlife     | Ferruginous Hawk Nest Monitoring – nest occupancy | SO, D7          | D7        | New Mexico, Texas and Oklahoma sites were monitored in FY 2012. Of the 18 known territories in NM, two were successful in 2012 with 4 young fledged. Of the 11 territories in Texas, two were successful with 4 young fledged. Of the 7 territories in Oklahoma, 5 were successful with 13 young fledged. | Timing: The best time to monitor the platforms is from about June 18 to June 25 because the young are close to fledging then, are readily visible and easy to count. Visits to the platforms in April are not particularly useful and may be detrimental to birds known for their propensity to abandon their clutch when disturbed early in the breeding season.<br>On average ferruginous hawk egg incubation starts around April 18, hatching about May 11 and the young fledge about June 26. |



FY 2012 Monitoring & Evaluation Report – Cibola National Forest & Grasslands

| Program Area | Monitoring Accomplished             | Record Location                | Districts | Results   | Comments   |
|--------------|-------------------------------------|--------------------------------|-----------|---|--|
| Wildlife     | Black-tailed prairie dog monitoring | SO and District Wildlife Files | D7        | Sixty-nine prairie dog colonies were mapped totaling 5001 acres; representing 37% growth from 2011. | <p>Monitoring conducted in association with Kansas State University and USGS Biological Resources Division. Colony area continues to increase on all four areas (Kiowa NG, Rita Blanca High Lonesome, North-Central Rita Blanca and Eastern Rita Blanca) that are being monitored. Colony size may not relate to prairie dog density due to continued severe drought. Annual monitoring of BTPD colonies provides data on changes in colony size that reveal patterns of colony growth, death, and recolonization in the presence or absence of sylvatic plague. These data have contributed significantly to our understanding of both prairie dog population dynamics and the spatial and temporal dynamics of sylvatic plague.</p> <p>10 colonies on High Lonesome were dusted with Deltamethrin in summer 2012 to kill fleas that transmit plague among prairie dogs. The colonies that were dusted in 2012 were RB33, RB 33b, RB 34, RB35, RB36d, RB 37, RB37b, RB37c, RB37d, and</p> |

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|  |  |  |  |  | <p>RB37e. During 2012, APHIS biologists collected blood samples from Coyotes (<i>Canis latrans</i>) from the Rita Blanca National Grassland to test for antibodies to <i>Y. pestis</i>. All samples were negative, which is generally interpreted as indicating that plague is not active nearby. In any case, colonies continued to grow, and are now probably adequate to support ferrets if the agencies concerned decide that is desirable. The recovery criteria for prairie dog colony area to support a population of black-footed ferrets call for 1,000 acres (405 ha) among colonies separated by &lt; 7km (the documented dispersal range of black-footed ferrets). During 2012, both The High Lonesome, and the northern Kiowa exceeded that threshold. If additional colony die-offs do not occur in the area and the colony areas continue to grow, these areas will be ready to accommodate reintroduction of black-footed ferrets if that decision is made.</p> |
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FY 2012 Monitoring & Evaluation Report – Cibola National Forest & Grasslands

| Program Area | Monitoring Accomplished                                       | Record Location         | Districts | Results                            | Comments  |
|--------------|---|-------------------------|-----------|------------------------------------|---|
| Wildlife     | Threatened and Endangered / sensitive plants - Zuni fleabane. | District Wildlife Files | D2        | No new inventories were conducted. | A mineral withdrawal EA for areas where this plant occurs on the Cibola NF was drafted and sent to the Forest NEPA coordinator for review. The USFWS needs additional data to ensure that areas proposed for mineral withdrawal have populations sufficient to ensure viability of the plant if the plant is delisted across its range. |

FY 2012 Monitoring & Evaluation Report – Cibola National Forest & Grasslands

| Program Area | Monitoring Accomplished  | Record Location | Districts  | Results  | Comments   |
|--------------|--|-----------------|--|--|--|
| Wildlife     | Monitored occurrence and population trend of migratory and resident birds on about 140 miles of transects to determine Habitat Trends-Habitat Diversity. | Districts       | D2=1 two mile route;<br>2 USGS 24 mile routes;<br>D3=3 two mile routes and 3 USGS 24 mile routes;<br>D4= 1 one mile route and one USGS 24 mile route;<br>D5=2 one mile routes. | <p>Management Indicator Species (MIS):</p> <p>Juniper titmouse - statewide population trend down, Cibola habitat trend stable.</p> <p>Pygmy nuthatch- statewide population trend up, Cibola habitat trend up.</p> <p>Hairy woodpecker-statewide population trend slightly up, Cibola habitat trend stable.</p> | <p>USGS Breeding Bird Survey has accumulated enough data during the last forty years to delineate state level population trends.</p> <p>Population trends on 1 and 2 mile Cibola routes can be used to compare trends at the state and National level.</p> <p>Juniper titmouse is especially well suited to be an Indicator Species because it is so sedentary and disinclined to wander, even in winter. Species prefers juniper dominated P/J woodlands.</p> <p>Pygmy nuthatch is often seen in flocks, causing considerable variance from year to year, thus distorting the trend. The long term habitat trend is positive because considerable restoration is planned for ponderosa habitat, i.e., it is being thinned and burned, allowing for the growth of fewer, but larger, healthier trees.</p> <p>While generally hairy woodpecker seems to be undercounted, sometimes the opposite is true, when the bird appears in clusters,</p> |

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|  |  |  |  | <p>Red-breasted nuthatch-statewide population trend slightly up, habitat trend stable.</p> <p>Red-naped sapsucker- statewide population trend up, habitat trend declining due to loss of aspen throughout the SW.</p> <p>House wren- statewide population trend down, Cibola habitat trend stable to improving.</p> | <p>as after a forest fire when trees often become infested with bugs and grubs. Such fluctuations tend to throw off the trend estimates, as can be seen in Claunch and Claunch2 BBS where the trend oscillates wildly between extremes.</p> <p>Red-breasted nuthatch is a nomad resident occurring abundantly one year and perhaps not at all the next, a phenomenon mostly linked to the availability of food supplies, i.e., a good cone crop.</p> <p>Red-naped sapsucker is difficult to detect, but has high site fidelity so can indicate habitat quality over the long-term in areas where it is known to occur.</p> <p>House wren is an appropriate indicator species for lower elevation riparian habitat.</p> <p>USGS Breeding Bird Survey = These 24.5-mile, randomly-selected surveys are conducted according to protocol. They begin one half hour before sunrise, with stops every half mile. At each of the 50 STOPS, birds seen and heard are counted for three</p> |
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|  |  |  |  |  | <p>minutes. Conducted annually.</p> <p>These mostly habitat-specific, fine-filter surveys are generally from one mile to two miles in length and either have six or eleven points, spaced .2 miles apart. Birds are counted for ten minutes at each point. Transects are rotated at 1-5 yr. intervals.</p> |
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FY 2012 Monitoring & Evaluation Report – Cibola National Forest & Grasslands

| Program Area | Monitoring Accomplished   | Record Location      | Districts   | Results  | Comments  |
|--------------|---|----------------------|-------------|--|---|
| Wildlife     | Monitored Game -<br>Management Indicator<br>Species: Merriam's Turkey<br>Rocky Mountain Elk<br>Mule Deer<br>Black Bear<br>Rio Grande Turkey | NMDGF, ODWC,<br>TDPW | Forest-wide | Monitoring in conjunction with NMDGF on D3 for black bear, mule deer, and elk shows continuing upward trend in populations. Habitat trend for mule deer is declining in all but PJ and mountain shrub habitats, as evidenced by declining observations of mule deer in all other habitat types.<br><br>Rio Grande turkey population is slowly increasing, all available habitat has high numbers at this time. | Unknown if mule deer trend is due to actual decline in habitat quality or competition with elk in these habitats on D3. Population trend data is not consistent from year to year because NM units 8, 14 and 38 are low priority monitoring units for NMDGF.  |
| Wildlife     | Monitored trends of migrating raptor populations on the Sandia and Manzano Mountains.   | Districts            | D4          | HawkWatch Raptor monitoring site on the Manzano Mountains near Capilla Peak through a Challenge Cost Share Agreement.  | Observers counted 4,248 migrant raptors of 17 species during this past season. The flight was comprised of 56% accipiters, 20% hawks, 11% vultures, 8% falcons, 3% eagles, 1% harriers, and <1% Ospreys and unidentified raptors. The proportions of buteos, vultures, and eagles were above average, whereas the proportions of accipiters, falcons, harriers, and Ospreys were below average. The most abundant species counted was the Sharp-shinned Hawk (39% of the total), followed by the Cooper's Hawk (14%), Turkey Vulture (11%), Red-tailed Hawk |

FY 2012 Monitoring & Evaluation Report – Cibola National Forest & Grasslands

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|  | <p>Monitored Fall Passerine bird species by trapping at Capilla Peak.</p> |  |  | <p>Rio Grande Bird Research monitoring through a Challenge Cost Share Agreement.</p> | <p>(10%), Swainson’s Hawk (9%), American Kestrel (5%), and Merlin (2%). Other species observed at the site each made up around 1% or less of the total.</p> <p>RGBR recorded higher than average number of birds per 100 net hours and higher than average number of species. Several new species for the area were reported. not caught one in our nets until this year including the Philadelphia Vireo, Chestnut-sided Warbler and Cassin’s Finches. Partner reported banding more Red Crossbills than ever in one season and banding 238 Pine Siskins with a previous high of 36 Pine Siskins in one season. Other higher than average species include: Sharp-shinned Hawks, Red and White-breasted Nuthatches, Hermit Thrushes, and dark-eyed juncos (when combining subspecies). Flycatcher numbers overall were on average even though the composition was different by species. However, there were lower than average for other species including no Red-shafted Flickers or Warbling Vireos. All warbler numbers were low.</p> |
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FY 2012 Monitoring & Evaluation Report – Cibola National Forest & Grasslands

| Program Area | Monitoring Accomplished | Record Location     | Districts | Results   | Comments   |
|--------------|-------------------------|---------------------|-----------|---|--|
| Wildlife     | Mountain Plovers        | District Office, SO | D7        | 43 Mtn. Plovers were detected on the Eastern Kiowa and Rita Blanca National Grasslands, all on active prairie dog colonies, with birds in groups of 1-20 individuals. | Also detected were Burrowing Owls ( <i>Athene cunicularia</i> ) on prairie dog colonies and Ferruginous Hawks ( <i>Buteo regalis</i> ), Golden Eagles ( <i>Aquila chrysaetos</i> ), Long-billed Curlews ( <i>Numenius americanus</i> ), and Swainson's Hawks ( <i>Buteo swainsoni</i> ) on both colonies and off-colony rangeland sites. |

FY 2012 Monitoring & Evaluation Report – Cibola National Forest & Grasslands

| Program Area | Monitoring Accomplished   | Record Location                         | Districts   | Results   | Comments  |
|--------------|---|---|-------------|---|---|
| Wildlife     | Grasslands Birds  | Rocky Mountain Bird Observatory Website | D7          | 42 species on Kiowa NG; 30 species on Rita Blanca NG.                     | <p>To view a map of survey locations, density and occupancy results, and species counts within Kiowa National Grassland across all years of the project follow the web link below and hit the “Run Query” button highlighted in red located near the top of the page.<br/> <a href="http://www.rmbo.org/new_site/adc/QueryWindow.aspx#{'stratum': 'NM-BCR18-KI: Kiowa National Grassland'}">http://www.rmbo.org/new_site/adc/QueryWindow.aspx#{'stratum': 'NM-BCR18-KI: Kiowa National Grassland'}</a></p> <p>To view a map of survey locations, density and occupancy results, and species counts within Rita Blanca National Grassland across all years of the project follow the web link below and hit the “Run Query” button highlighted in red located near the top of the page.<br/> <a href="http://www.rmbo.org/new_site/adc/QueryWindow.aspx#{'superstratum': 'Rita Blanca National Grassland'}">http://www.rmbo.org/new_site/adc/QueryWindow.aspx#{'superstratum': 'Rita Blanca National Grassland'}</a></p> |
| Wildlife     | Monitored Habitat Stamp projects, effectiveness and wildlife use. | Districts                               | Forest-wide | Monitored 22 projects in association with NM Department of Game and Fish. | Provides data that is helpful in determining maintenance needs.   |